

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

EDGEWELL PERSONAL CARE  
BRANDS, LLC,

Plaintiff,

v.

ALBAAD MASSUOT YITZHAK, LTD.  
and ALBAAD USA, INC.,

Defendants.

Civil Action No. 15-1188 (KAJ)

**FILED UNDER SEAL**

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MEMORANDUM OPINION

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March 27, 2018  
Wilmington, Delaware

  
JORDAN, Circuit Judge, sitting by designation.

## **I. INTRODUCTION**

The present patent dispute requires me to consider whether claiming particular ratios derived from measurements of a known device constitutes a patentable invention. It does not, at least not in this case. Edgewell Personal Care Brands, LLC sued Albaad Massuot Yitzhak, Ltd. and Albaad USA, Inc. for infringing, among other things, Claims 1, 2, 5, and 6 of U.S. Patent No. 6,432,075 (the “’075 Patent”). Those are the only claims still in suit. Before me now are Edgewell’s Motion for Summary Judgment of No Invalidity (Docket Index (“D.I.”) 147), Albaad’s Motion for Summary Judgment of Patent Invalidity (D.I. 152), Edgewell’s Motion for Summary Judgment of Infringement (D.I. 144), Albaad’s Motion for Summary Judgment of Non-Infringement and No Willful Infringement (D.I. 155), Edgewell’s Motion to Exclude Brad Thompson From Offering Any Opinions at Trial Regarding Lost Profits and/or Damages Generally (D.I. 150), and Albaad’s Motion to Exclude the Testimony of Plaintiff’s Damages Expert, Jennifer Vanderhart (D.I. 158). For the reasons that follow, I will grant Albaad’s Motion for Summary Judgment of Patent Invalidity (D.I. 152), and deny the remaining motions (D.I. 144, 147, 150, 155, 158).

## **II. BACKGROUND<sup>1</sup>**

Edgewell manufactures and sells feminine hygiene products under the Playtex brand, including the Playtex Sport tampon, which is marketed to women with an active lifestyle and incorporates patented technology directed at the tampon applicator. Albaad also manufactures tampons, which it markets, imports, and sells under private labels at U.S. retail outlets. Edgewell alleges that Albaad's private label tampons directly infringe its tampon applicator patent.

### **A. The '075 Patent<sup>2</sup>**

The '075 Patent claims a tampon applicator and, specifically, two geometric ratios related to the applicator's tip. Titled "Applicator for Tampons," the '075 Patent issued on August 13, 2002, from a patent application filed on November 8, 2000, and having a foreign priority date of November 19, 1999. Of its six claims, Claims 1, 5, and 6 are independent. Claim 1 is illustrative of the other independent claims, and it stakes right to a tampon applicator comprising, among other things, a tip "wherein a ratio of a radius of an outer face at an inflection point of a boundary between a maximum diameter portion of said first diameter portion and said curved face portion to an axial length of the outer

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<sup>1</sup> Because Edgewell brings this action pursuant to the patent laws of the United States, 35 U.S.C. §§ 271, 281, 283, 284, and 285, this Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a). *Segway Inc. v. Inventist, Inc.*, 182 F. Supp. 3d 160, 162 (D. Del. 2016).

<sup>2</sup> Edgewell claims to be the exclusive licensee for the '075 Patent, which is assigned to Unicharm Corporation, a Japanese company. Edgewell claims that the exclusive license grants it substantially all the rights of the '075 Patent, including the right to bring suit under that patent.

face from the inflection point to the leading end of said curved face portion is at most 0.8,” and “wherein a ratio of a length of said valves to a width of root ends of said valves is 1.0 to 2.0.” (D.I. 149, Ex. 3 at col 7 ll. 24-44.)

In other words, as discussed in detail and in diagrams in the parties’ briefing, the ’075 Patent claims two geometric ratios of the applicator tip. The first ratio is A/B, which represents the ratio of the radius of the forward portion at the first inflection point to the axial length from the first inflection point to the leading end, taken after the petals are shaped into a curved state. The second ratio is L/W, which represents the ratio of the straight tip length between the first inflection point and the leading end of the petals to the width of a petal at its root end. The ’075 Patent claims an applicator having a tip with an A/B ratio of at most 0.8 and an L/W ratio of 1.0 to 2.0.

Claims 2, 5, and 6 either are dependent on Claim 1 or are largely the same as Claim 1 with additional limitations. Claim 6 is an independent claim that is largely the same as Claim 1, but adds that the applicator be “made of a thermoplastic resin[.]”<sup>3</sup> (D.I. 149, Ex. 3 at col. 8 ll. 29-51.) Claim 2 is dependent on Claim 1, and adds the limitation “wherein the root ends of said valves are located substantially at the inflection point.” (D.I. 149, Ex. 3 at col. 7 ll. 46-47.) Claim 5 is an independent claim that is largely the same as Claim 1, but adds “a first inflection point at the root end of said valve and a

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<sup>3</sup> I address Claim 6 immediately after Claim 1 because they are so closely related. The parties concede that there is effectively no difference between Claim 1 and Claim 6 except for requiring that the outer cylinder be “made of a thermoplastic resin[.]” (D.I. D.I. 149, Ex. 3 at col. 8 l. 31; D.I. 153 at 17; D.I. 171 at 20 (citing D.I. 148 at 19-23).) Why Claim 6 is drafted as an independent claim is a bit of a mystery to me.



second inflection point adjacent to the leading end of said valves, a curvature radius for said first inflection point being larger than a curvature radius for said second inflection point[.]” (D.I. 149, Ex. 3 at col. 8 ll. 7-28.)<sup>4</sup>

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<sup>4</sup> Claims 1, 2, 5, and 6 read in full as follows:

1. An applicator for a tampon, comprising:

an outer cylinder including forward and rearward ends, a first portion for fitting the tampon therein formed on a side of the forward end, and a second portion formed on a side of the rearward end and having a smaller diameter than that of said first portion,

a push-out member movably inserted into said second portion of said outer cylinder, and

a plurality of valves provided with the forward end of said outer cylinder, each valve being converged to have a curved face portion to be diametrically gradually reduced and define a leading end,

wherein a ratio of a radius of an outer face at an inflection point of a boundary between a maximum diameter portion of said first diameter portion and said curved face portion to an axial length of the outer face from the inflection point to the leading end of said curved face portion is at most 0.8; and

wherein a ratio of a length of said valves to a width of root ends of said valves is 1.0 to 2.0.

2. An applicator for a tampon as set forth in claim 1,

wherein the root ends of said valves are located substantially at the inflection point.

5. An applicator for a tampon, comprising:

an outer cylinder including forward and rearward ends, a first portion for fitting a tampon therein formed on a side of the forward end, and a second portion formed on a side of the rearward end and having a reduced diameter relative to said first portion,

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a push-out member movably inserted into said second portion of said outer cylinder, and

a plurality of valves provided with the forward end of said outer cylinder, each having a root end, a curved face portion to be diametrically gradually reduced, a leading end, a first inflection point at the root end of said valve and a second inflection point adjacent to the leading end of said valves, a curvature radius for said first inflection point being larger than a curvature radius for said second inflection point,

wherein a ratio of a radius of an outer face at said first inflection point to an axial length of said curved face from said first inflection point to the leading end of said curved face portion is at most 0.8; and

wherein a ratio of a length of said valves to a width of said root ends of said valves is 1.0 to 2.0.

6. An applicator for a tampon comprising:

an outer cylinder made of a thermoplastic resin and including forward and rearward ends, a first portion for accommodating the tampon therein formed on a side of the forward end, and a second portion formed on a side of the rearward end and having a reduced diameter relative to said first portion;

a push-out member movably inserted into said second portion of said outer cylinder;

a plurality of valves provided with the forward end of said outer cylinder, each valve being converged to have a curved face portion to be diametrically gradually reduced and define a leading end;

wherein a ratio of an outer radius at an inflection point of a boundary between a maximum diameter portion of said first portion and said curved face portion to an axial length of said curved face portion from the inflection point to the leading end of said curved face portion is at most 0.8; and

wherein a ratio of a length of said valves to a width of root ends of said valves is 1.0 to 2.0.

(D.I. 149, Ex. 3 at col. 7 l. 24 to col. 8 l. 51.)

## **B. Procedural History**

On December 21, 2015, Edgewell filed this patent infringement action against Albaad under 35 U.S.C. §§ 271, 281, 283, 284, and 285. In its second amended complaint, Edgewell alleged that Albaad infringed the '075 Patent, as well as U.S. Patent Nos. 9,192,522 and 8,551,034. At this stage of the litigation, Edgewell only asserts Claims 1, 2, 5, and 6 of the '075 Patent. On April 5, 2017, this Court held a *Markman* hearing and, on May 9, 2017, issued an opinion construing disputed claim terms.<sup>5</sup>

Edgewell submitted an expert report by Mr. Donald Sheldon on infringement. Albaad submitted an expert report by Mr. Raymond J. Hull, Jr. on invalidity. Both of those expert witnesses filed supplemental rebuttal reports, and both were deposed, as were Edgewell's Federal Rule of Civil Procedure 30(b)(6) technical experts, Mr. Yinka Abdul and Mr. Erik Rahner. Additionally, Edgewell submitted a damages expert report by Dr. Jennifer Vanderhart, and Albaad submitted a damages expert report by Mr. Brad Thompson. Both damages experts were deposed.

On July 17, 2017, the Patent Trial and Appeal Board ("PTAB") denied Albaad's petition requesting an *inter partes* review ("IPR") of Claims 1-6 of the '075 Patent because "the information presented ... [did] not establish a reasonable likelihood that [Albaad] would prevail in challenging [C]laims 1-6 of the '075 [P]atent as unpatentable." (D.I. 149, Ex. 1 at 2.) Albaad submitted evidence to the PTAB based on measurements it

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<sup>5</sup> The case originally was assigned to the Honorable Richard G. Andrews, United States District Judge for the District of Delaware. The case was reassigned to me on August 29, 2017.

took from a drawing in U.S. Patent No. D250,663 (the “Koch patent”). The PTAB concluded that the Koch patent did not anticipate Claims 1-5 because the specific A/B and L/W ratios claimed in the ’075 Patent could not be measured from the Koch patent’s imprecise and unscaled illustration. For those same reasons, it summarily rejected Albaad’s argument that Claim 6 was invalid for obviousness in light of the Koch patent.<sup>6</sup> Importantly, Albaad never argued to the PTAB that Claims 1, 2, and 5 were obvious over the Koch patent standing alone. The PTAB also rejected Albaad’s anticipation and obviousness challenges based on other patents.

Presently, as described above, there are six motions pending. On March 2, 2018, I held oral argument on those motions.

### III. LEGAL STANDARDS

Summary judgment is proper only if “the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a). The moving party bears the burden of proving that no genuine issue of material fact exists. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 585 n.10 (1986). “A dispute about a material fact is genuine if the evidence is such that a reasonable jury could return a verdict for the nonmoving party.” *Schering Corp. v.*

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<sup>6</sup> The parties agree that the PTAB’s decision does not have preclusive effect because an *inter partes* review was never instituted. (D.I. 169 at 11-12; D.I. 201 at 6); *see also* 35 U.S.C. § 315(e)(2) (“The petitioner in an *inter partes* review of a claim in a patent ... that results in a final written decision ... may not assert ... in a civil action arising in whole or in part under section 1338 of title 28 ... that the claim is invalid on any ground that the petitioner raised or reasonably could have raised during that *inter partes* review.”).

*Geneva Pharm., Inc.*, 339 F.3d 1373, 1381 (Fed. Cir. 2003) (internal quotation marks and citation omitted).

If the moving party has demonstrated an absence of material fact, the nonmoving party then “must come forward with ‘specific facts showing that there is a *genuine issue for trial.*’” *Matsushita*, 475 U.S. at 587 (quoting Fed. R. Civ. P. 56(e) (1968)). The Court “view[s] the evidence in a light most favorable to the non-movant, and draw[s] all reasonable inferences in its favor.” *Group One, Ltd. v. Hallmark Cards, Inc.*, 254 F.3d 1041, 1045 (Fed. Cir. 2001). The mere existence of some evidence in support of the nonmoving party, however, will not be sufficient to defeat summary judgment; there must be enough evidence to enable a reasonable jury to find for the nonmoving party on that issue. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 249 (1986). If the nonmoving party fails to make a sufficient showing on an essential element of its case with respect to which it has the burden of proof, the moving party is entitled to judgment as a matter of law. *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986).

#### **IV. SUMMARY JUDGMENT MOTIONS ON INVALIDITY**

The parties have filed cross-motions for summary judgment regarding the validity of Claims 1, 2, 5, and 6 of the '075 Patent. Albaad moves for summary judgment of patent invalidity, while Edgewell moves for summary judgment of no invalidity. I begin with Albaad's motion, in which Albaad argues that Claims 1, 2, 5, and 6 of the '075 Patent are invalid as obvious, that those claims are also invalid for lack of written description, and that Claim 5 suffers from the additional fatal flaw of indefiniteness. Edgewell of course responds that those claims are not invalid. Because I agree with

Albaad that the asserted claims of the '075 Patent are invalid for obviousness, I will grant the motion for summary judgment of patent invalidity. That also effectively decides Edgewell's motion for summary judgment of no invalidity.

A claimed invention is unpatentable if the differences between it and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the pertinent art. 35 U.S.C. § 103; *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 13-14 (1966). Whether the claimed subject matter would have been obvious at the time of invention to one of ordinary skill in the pertinent art is a question of law based on several underlying facts: (1) the scope and content of the prior art; (2) the differences between the claimed invention and the prior art; (3) the level of ordinary skill in the art; and (4) any relevant secondary considerations, such as commercial success, long felt but unsolved need, and failure of others. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007); *Graham*, 383 U.S. at 17-18. When "the content of the prior art, the scope of the patent claim, and the level of ordinary skill in the art are not in material dispute, and the obviousness of the claim is apparent in light of these factors, summary judgment [on the issue of obviousness] is appropriate." *KSR*, 550 U.S. at 427.

The analysis of obviousness is not subject to any "rigid rule" that requires an express "discussion of obvious techniques or combinations" in the prior art. *Id.* at 419. Rather, other factors, such as "market demand," "any need or problem known in the field of endeavor at the time of invention and addressed by the patent," "the inferences and creative steps that a person of ordinary skill in the art would employ," and "common

sense” may evidence obvious “design trends ... that would occur in the ordinary course without real innovation[.]” *Id.* at 418-20.

“Before the Supreme Court’s decision in *KSR*, [the Federal Circuit] required that a patent challenger show that a person of ordinary skill in the art would have had motivation to combine the prior art references and would have had a reasonable expectation of success in doing so.” *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1238 (Fed. Cir. 2010). In *KSR*, however, the Supreme Court instructed courts “to take a more ‘expansive and flexible approach’ in determining whether a patented invention was obvious at the time it was made.” *Id.* (quoting *KSR*, 550 U.S. at 415). The Court particularly “emphasized the role of ‘common sense’: ‘[r]igid preventative rules that deny factfinders recourse to common sense ... are neither necessary under our case law nor consistent with it.’” *Id.* (alteration in original) (quoting *KSR*, 550 U.S. at 421).

Nevertheless, “a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR*, 550 U.S. at 418. “When determining whether a patent claiming a combination of known elements would have been obvious, we ‘must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.’” *TriMed, Inc. v. Stryker Corp.*, 608 F.3d 1333, 1341 (Fed. Cir. 2010) (quoting *KSR*, 550 U.S. at 417). “Answering this question usually entails considering the ‘interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an

apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *Id.* at 1341 (quoting *KSR*, 550 U.S. at 418). That factual inquiry, and “the legal determination of obviousness[,] may include recourse to logic, judgment, and common sense” and is “appropriate for resolution on summary judgment or JMOL.” *Wyers*, 616 F.3d at 1239-40; *see also Perfect Web Tech., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1329 (Fed. Cir. 2009) (“We therefore hold that ... an analysis of obviousness ... may include recourse to logic, judgment, and common sense available to the person of ordinary skill that do not necessarily require explication in any reference or expert opinion.”).<sup>7</sup> The defendant “has the burden to prove invalidity by clear and convincing evidence.” *Stryker Corp. v. Zimmer, Inc.*, 837 F.3d 1268, 1272 (Fed. Cir. 2016).

I will analyze each claim separately, beginning with Claim 1, then Claim 6, followed by Claim 2, and finally Claim 5. I ultimately conclude that all of those claims would have been obvious, and therefore are invalid as a matter of law, under § 103.

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<sup>7</sup> Edgewell’s expert asserts that, with respect to the ’075 Patent, a person of ordinary skill in the art “would have ... a Bachelor’s degree in engineering or a hard science, *e.g.*, chemistry or biology, and at least two years of experience developing and designing intravaginal devices.” (D.I. 154, Ex. 10 at ¶ 45.) Albaad’s expert largely agrees, stating that a person of ordinary skill in the art “would have had at least a [B]achelor’s degree in engineering or science (*e.g.*, biology or chemistry), and would have had at least four years of experience in designing and building prototype tampons and tampon applicators.” (D.I. 154, Ex. 2 at ¶ 103.) He thinks that that person “would also have experience with focus groups and users of [those] products, and from that experience would have known what shapes and what features appealed to users.” (D.I. 154, Ex. 2 at ¶ 103.) The parties do not appear to dispute the relatively minor differences between their asserted characteristics of the person having ordinary skill in the art. For the purposes of the summary judgment motions before me now, the differences are not material.



### 1. Claim 1 of the '075 Patent is Obvious

Albaad argues that Claim 1 would have been obvious in light of the Koch patent, which is a design patent, when combined with common sense and the background knowledge of a person having ordinary skill in the art.<sup>8</sup> First and foremost, the parties agree that tapered tips for tampon applicators were well known in the art before the claimed invention in the '075 Patent. Devices with tapered tips that inserted material into a human body were the subject of patents dating back to 1939. (D.I. 154, Ex. 2 at ¶¶ 58-59; D.I. 154, Ex. 3.) More specifically, a tampon applicator product called the “Rely and Petal Soft” was marketed in the 1980s as having a “plastic inserter with a tapered tip[.]” (D.I. 154, Ex. 2 at ¶¶ 73-74; D.I. 154, Ex. 4 at P&G000011, P&G000015.) Moreover, Edgewell’s expert, Mr. Sheldon, testified that a prior art patent depicted a tampon applicator having a tip that was “more elongated than a hemisphere.” (D.I. 154, Ex. 5 at 69:10-11.) No one argues that a tapered tip, by itself, is an inventive component of the '075 Patent. Rather, it is a specific characteristic of those known tapered tips that is at issue. (See D.I. 171 at 9 (“[T]he '075 [P]atent is focused on *a specific type of tapered tip* defined by petals having a very specific geometry – specifically, the A/B ratio and the L/W ratio.”).)

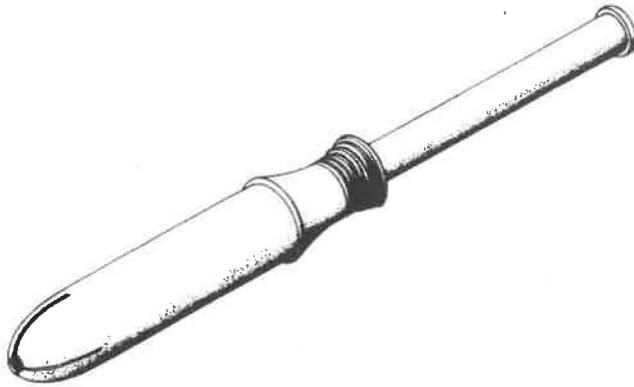
The dispute between the parties centers on whether the claimed A/B and L/W ratios were disclosed in the prior art, either explicitly or by what the prior art would have

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<sup>8</sup> Design patents may form the basis for invalidating claims in a utility patent under anticipation or obviousness theories. *In re Aslanian*, 590 F.2d 911, 913-14 (C.C.P.A. 1979).

taught a person having ordinary skill in the art. (See D.I. 153 at 9 (“The only differences Edgewell has asserted between [C]laim 1 and the prior art are the taper ratio A/B and the petal ratio L/W, and Edgewell admits all other claim elements were in the prior art[.]”); D.I. 154, Ex. 5 at 98:16-99:5 (testimony from Edgewell’s expert that the only “major elements” lacking from the Koch patent appear to be the A/B and L/W ratios); D.I. 171 at 7 (“In the instant case, Albaad fails to show that the claimed ranges related to the petals and the tip – the A/B ratio and L/W ratio – are taught by the ‘prior art.’”); D.I. 215 at 87:12-88:2 (counsel for Edgewell admitting that, with respect to obviousness, the only disputed elements of Claim 1 are the A/B and L/W ratios).) Therefore, there is no dispute that the Koch patent teaches all claim elements but the claimed ratios, and the analysis that follows focuses on whether those ratios are present in or obvious from the prior art.

The Koch patent, which issued in 1978, contains a single design claim “for a tampon inserter,” and the claimed design is depicted below. (D.I. 154, Ex. 6.) The patent describes the depiction as “an isometric illustration of a tampon inserter[.]” (D.I. 154, Ex. 6.) “The design is cylindrical and the side not shown is a mirror image of the side shown.” (D.I. 154, Ex. 6.) Even though the Koch patent does not expressly disclose any specific A/B or L/W ratios, “[a] reference must be considered not only for what it expressly teaches, but also for what it fairly suggests.” *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1362 (Fed. Cir. 2001) (quoting *In re Baird*, 16 F.3d 380, 383 (Fed. Cir. 1994)).



(D.I. 154, Ex. 6.)

The parties' experts agree that a person having ordinary skill in the art would observe that the tampon applicator depicted in the Koch patent disclosed an "elongated" tip – that is, a tip stretched beyond the shape of a hemisphere. (D.I. 154, Ex. 2 at ¶¶ 137-38, Ex. 5 at 68:10-69:25.) They also agree about the implications of that teaching. Specifically, they agree, as they must, that an elongated applicator tip with four petals would necessarily have an A/B ratio less than 1.0 and an L/W ratio greater than 1.0.<sup>9</sup>

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<sup>9</sup> Albaad's expert, Mr. Hull, explained that "[s]electing the claimed ratio ranges would be well within the capability of a person of ordinary skill" because "[i]f one of ordinary skill were to design an applicator with an elongated tip ..., the resulting ratios of the '075 [P]atent would have been [an] obvious selection." (D.I. 154, Ex. 2 at ¶ 137.) Specifically, Hull stated that, "because a hemispherical tip with four petals would have an L/W ratio of 1.0 ..., an applicator with four tips [sic] and any elongation at all would naturally have an L/W of greater than 1[.]" (D.I. 154, Ex. 2 at ¶ 137.) He also indicated that, "[u]pon elongating the tip, once the axial length (B) exceeds the radius (A) by 20%, the A/B ratio of 0.8 is satisfied[.]" and selecting "A/B of less than 0.8 would have been an arbitrary choice." (D.I. 154, Ex. 2 at ¶ 138.)

Edgewell's expert, Mr. Sheldon, agreed with those mathematical truths. Sheldon agreed that a "hemispherical shape on an applicator would have an A over B of 1," and "elongat[ing] that tip shape beyond a hemisphere" should "reduce" A/B "below 1[.]" (D.I. 154, Ex. 5 at 82:2-23.) He agreed "that the A/B ratio bears no relation to the number of petals[.]" (D.I. 154, Ex. 5 at 84:12-15.) He also agreed that, if one took "a hemispherical applicator tip having four petals" and "elongate[d] it, a little bit, even a

There is no material dispute of fact, then, that the Koch patent discloses a tampon applicator with ranges of values for both the A/B ratio and the L/W ratio that encompass those ratios claimed in the '075 Patent, which are A/B less than 0.8 and L/W between 1.0 and 2.0. The only remaining question is whether Claim 1's specific ratios are obvious in light of the Koch patent's teachings.<sup>10</sup>

The Federal Circuit has adopted rules tailored to claiming specific values that fall within prior art ranges. “[W]hen the difference between the claimed invention and the prior art is the range or value of a particular variable,’ then a patent should not issue if

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little bit, [one would] get L over W greater than 1[.]” (D.I. 154, Ex. 5 at 86:14-90:4.)

At the summary judgment motion hearing, I asked counsel for Edgewell: “As long as [the tampon applicator tip has] a football shape, you elongate that tip, those ratios have to go in an A/B instance, below one[,] and in the L/W instance, above one, do they not?” Edgewell’s counsel responded that “[m]aybe if you had four [petals] only, that would be the case.” (D.I. 215 at 94:11-14, 95:13-16.)

<sup>10</sup> The parties agree that the Koch patent likely discloses four petals. Additionally, the '075 Patent’s specification states that the preferred embodiment contains four petals. Hull’s expert report and the prior art indicate that changing the number of petals may produce negative consequences. Decreasing the number of petals may increase the required ejection force, and increasing the number of petals may decrease tip stability. Although Sheldon could not confirm those correlative relationships, he did not contradict them. Thus, there is no material dispute of fact that it may be disadvantageous to deviate significantly from the four-petal arrangement. Furthermore, as a matter of logic, increasing the number of petals would not alter the disclosed range because the petal width, W, decreases as the number of petals increases, which necessarily means that the L/W ratio would increase, holding all else constant. Adding gaps between the petals would only further increase the L/W ratio beyond 1.0. Even if decreasing the number of petals could cause the L/W ratio to dip below 1.0, that simply means the prior art may teach an even broader genus of L/W ratio values covering the species claimed in the '075 Patent. *Cf. Prometheus Labs., Inc. v. Roxane Labs., Inc.*, 805 F.3d 1092, 1098 (Fed. Cir. 2015) (discussing the law of obviousness as it relates to genus-species conflicts). And the A/B ratio does not depend on the number of petals. But as noted the parties do not dispute that the Koch patent discloses a four-petal applicator.

‘the difference in range or value is minor.’” *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1321 (Fed. Cir. 2004) (alteration in original) (quoting *Haynes Int’l v. Jessop Steel Co.*, 8 F.3d 1573, 1577 n.3 (Fed. Cir. 1993)). When a claimed invention falls within a range disclosed in the prior art, “there is a presumption of obviousness.” *Id.* at 1322. But, notably, “simply because an invention falls within a range disclosed by the prior art does not necessarily make it per se obvious” because “[b]oth the genus and species may be patentable.” *Id.* at 1321; *see also Prometheus Labs., Inc. v. Roxane Labs., Inc.*, 805 F.3d 1092, 1098 (Fed. Cir. 2015) (“An ‘earlier disclosure of a genus does not necessarily prevent patenting a species member of the genus.’” (citation omitted)). The presumption of obviousness can be overcome with evidence that “the prior art taught away from the claimed invention” or the claimed invention led to “new and unexpected results relative to the prior art[.]” *Iron Grip Barbell*, 392 F.3d at 1322. “Where ‘the difference between the claimed invention and the prior art is some range or other variable within the claims ..., the [patentee] must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results.’” *Id.* (alterations in original) (citation omitted). “[T]he burden of production falls upon the patentee to come forward with evidence” of that criticality. *Galderma Labs., L.P. v. Tolmar, Inc.*, 737 F.3d 731, 738 (Fed. Cir. 2013).

Here, the claimed ranges fall within the prior art because those ranges are encompassed by the A/B ratios and L/W ratios shown in the Koch patent. Thus, there is a presumption that the claimed ranges in the ’075 Patent are obvious. Because Edgewell has not pointed to any evidence that the prior art taught away from A/B less than 0.8 and

L/W between 1.0 and 2.0, it must rely on new or unexpected results to overcome the obviousness presumption. “Unexpected results that are probative of nonobviousness are those that are ‘different in kind and not merely in degree from the results of the prior art.’” *Id.* at 739 (citation omitted). Optimization of values found in the prior art is obvious in the absence of unexpected results or evidence of inventiveness beyond the capabilities of one of ordinary skill in the art. *In re Applied Materials, Inc.*, 692 F.3d 1289, 1297 (Fed. Cir. 2012).

When there is no evidence that a claimed value plucked from a range of values disclosed in the prior art is critical or that differences exist across the prior art range, a person of ordinary skill in the art would view the claimed value as an acceptable choice based on the prior art. As an example, though it arose in the context of an anticipation defense,<sup>11</sup> in *ClearValue, Inc. v. Pearl River Polymers, Inc.*, the patentee claimed a process for clarifying water having a raw alkalinity less than or equal to 50 ppm, even though the prior art claimed a process for clarifying water with 150 ppm or less of raw alkalinity and explained an example involving water with a total alkalinity of 60-70 ppm. 668 F.3d 1340, 1342, 1345 (Fed. Cir. 2012). The Federal Circuit held that the claimed

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<sup>11</sup> Although *ClearValue* was an anticipation case, that is a distinction without a real difference in this context because obviousness often presents a more flexible, easier standard to satisfy than anticipation. *See Eolas Techs. Inc. v. Microsoft Corp.*, 399 F.3d 1325, 1335 (Fed. Cir. 2005) (suggesting that evidence supporting anticipation “might also support an argument of obviousness in the alternative”); *Solarex Corp. v. Arco Solar, Inc.*, 805 F. Supp. 252, 282 (D. Del. 1992) (“Unlike anticipation, obviousness does not require that the prior art strictly identify the elements of the claimed invention, but rather focuses on the general teachings of the field.”). Moreover, the Federal Circuit has applied the concepts expressed in *ClearValue* in the obviousness context as well. *See generally Galderma Labs.*, 737 F.3d at 736-39.

range was anticipated by the prior art's disclosures. *Id.* at 1345. It reasoned that there was no evidence "the claimed method work[ed] differently at different points within the prior art range of 150 ppm or less," and that the claimed range was not considerably different than the prior art's genus disclosure. *Id.* In sum, there was no evidence that the 50 ppm or less limitation was critical to the invention in light of the prior art. *Id.*; *see also Galderma Labs.*, 737 F.3d at 735-39 (concluding that claims directed at an acne-treatment lotion containing 0.3% adapalene were obvious in light of prior art that taught an adapalene range of 0.01%-1% for acne-treatment lotions).

Here, the claimed A/B and L/W ratios do not appear to be critical to the invention. Just like the claim in *ClearValue* that was not considerably different than the broader range disclosed in the prior art, the claimed A/B and L/W species are not considerably different than the genus disclosed in the Koch patent. Edgewell has not come forward with any evidence suggesting that the prior art taught away from the claimed A/B and L/W ratios or that those ratios produced unexpected results. Instead of pointing to evidence of criticality, Edgewell spends much of its answering brief positing that the prior art does not teach the claimed ratios. Edgewell did not point it out but this Court recognized that the '075 Patent's specification suggests that the tampon applicator works differently at L/W values below 1.0 and above 2.0. When L/W is less than 1.0, users have reported that it is difficult to push the tampon out of the applicator. When L/W is greater than 2.0, injection molding can cause the leading ends of the tampon to be "cut out or burred," and curving the mold can cause the leading ends to deform by opening. (D.I. 154, Ex. 1 at col. 7 ll. 1-9.) The specification mentioned in a number of places that,

when the L/W ratio is between 1.0 and 2.0, the leading ends are less susceptible to deformation. Moreover, the specification also suggested that the tampon applicator works differently at A/B values below 0.8. It twice stated that, when the A/B ratio is less than 0.8, there is less resistance to insertion of the applicator into the vaginal cavity. So the patent-in-suit does discuss the benefits of the claimed ratios.

It is not enough, however, that evidence exists demonstrating the benefits of a claimed range, because the evidence must show either that the claimed range produced unexpected results or was somehow discouraged in the prior art. In *In re Geisler*, a patent applicant sought to claim rights to “a reflective article having a multilayer coating” that included a “third layer being 50 to 100 Angstroms thick.” 116 F.3d 1465, 1467 (Fed. Cir. 1997). The Federal Circuit held that the claimed article was *prima facie* obvious because prior art patents disclosed multilayer reflective coatings with a protective layer thickness between 100 and 600 Angstroms, and the patent applicant failed to rebut that evidence of obviousness by showing the criticality of the claimed range. *Id.* at 1467-68. It reasoned that, although there was evidence that the claimed thickness range demonstrated greater wear resistance, it did not equate to a showing of “unexpected results.” *Id.* at 1470. That evidence was insufficient to show that the claimed range was “unexpectedly good” or produced surprising results “in light of the state of scientific knowledge at the time regarding coatings of that composition.” *Id.* In sum, the Federal Circuit reiterated that “it is not inventive to discover the optimum or workable ranges by routine experimentation,” because it is “[o]nly if the ‘results of optimizing a variable’ are ‘unexpectedly good’ [that] a patent [can] be obtained for the claimed critical range.” *Id.*



(citations omitted); *see also In re Peterson*, 315 F.3d 1325, 1329-31 (Fed. Cir. 2003) (concluding that a claimed superalloy composition was not critical because, despite some evidence of the benefits of the claimed composition, the evidence did not equate to a showing of “unexpected results”); *cf. OSRAM Sylvania, Inc. v. Am. Induction Techs., Inc.*, 701 F.3d 698, 705-06 (Fed. Cir. 2012) (reversing a district court’s determination that the patentee did not show the criticality of a claimed range covered by the prior art because expert testimony and other evidence suggested “how one of ordinary skill in the art would understand the relative size of a genus or species in a particular technology,” as it relates to the criticality of the claimed range).

Here, Edgewell has neither offered any evidence that the prior art taught away from the A/B and L/W ratios claimed in the ’075 Patent nor any evidence that those ratios led to surprising or unexpected results over the prior art. At the summary judgment hearing, I asked Edgewell’s counsel about the criticality of the claimed ratios, and counsel responded that the claimed A/B ratio range improved insertion comfort and reduced pinching, and that the claimed L/W ratio range improved insertion comfort. That is not enough to demonstrate criticality, even when combined with the evidence stated in the ’075 Patent’s specification. Just like the facts in *Geisler*, where the evidence demonstrated the benefits of a claimed range but not that it produced unexpectedly good results, the evidence in this case does not show that the claimed A/B and L/W ratios are unexpectedly good, even if they produce beneficial results. Although the routine experimentation described in the ’075 Patent’s specification may demonstrate that the claimed ratios are optimal, the case law is clear that that is not enough to demonstrate

inventiveness. Moreover, even if the evidence in the specification were credited for more than it is worth, unlike the evidence in *OSRAM Sylvania*, the evidence here still does not explain how a person of ordinary skill in the art would understand the claimed range with respect to criticality and unexpected results.

Edgewell has not pointed me to any expert testimony indicating what a person having ordinary skill in the art would understand. In fact, Edgewell's expert and technical witness were unable to point to any unexpected results derived from the claimed ratios. Edgewell's Rule 30(b)(6) witness testified that she did not "know of any particular" unexpected results of the claimed subject matter in the '075 Patent. (D.I. 173, Ex. 11 at 219:11-17.) Additionally, when asked whether "there [was] any difference between what results [a person of ordinary skill in the art] would have expected and the actual results of implementing the [claimed] patent ratios," Edgewell's expert, Sheldon, responded "I don't know." (D.I. 173, Ex. 7 at 296:17-25.) The only support for the criticality of the claimed ratios is Edgewell's counsel's statements at the summary judgment hearing that the claimed A/B ratio range is "special" because "that was what the inventors determined to be the ratio that they thought worked best," (D.I. 215 at 85:8-12), and that both the claimed A/B and L/W ratio ranges were thought by the inventors to "create a comfortable experience" for the user, (D.I. 215 at 84:9-10). Thus, Edgewell has not met its burden of production with respect to the criticality of the claimed ratios. Like the broad genus range disclosed in the prior art in *Galderma Laboratories*, which rendered a single value within that range obvious, the broad genus range disclosed in the Koch patent is strong evidence that the '075 Patent's claimed ratios are obvious.

Edgewell's attempts to diminish the import of the Koch patent's teachings are unavailing. Edgewell argues that the '075 Patent's examiner and the PTAB both considered the Koch patent and concluded that it did not invalidate the '075 Patent's claims. But it is unclear what the examiner considered with respect to the Koch patent,<sup>12</sup> and the PTAB only considered whether the Koch patent anticipated Claim 1, not whether that patent rendered Claim 1 obvious. Edgewell also contends that there are no precise dimensions in the Koch drawing from which to measure the values necessary to calculate A/B and L/W. True enough. But, while drawings in a patent cannot be used to derive precise measurements or dimensions in the absence of some indication that the drawings are to scale or are otherwise drawn with such precision, *see Nystrom v. TREX Co.*, 424

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<sup>12</sup> A defendant's invalidity argument is "especially difficult" when the prior art supporting its argument – here, the Koch patent – was before the patent-in-suit's examiner. *Sanofi-Synthelabo v. Apotex, Inc.*, 470 F.3d 1368, 1375 (Fed. Cir. 2006) (citation omitted). But here, the examiner did not have the benefit of the evidence now before me. The examiner noted the Koch patent was "not relied upon [and wa]s considered pertinent to applicant's disclosure" because it and other prior art references "disclose applicators." (D.I. 146 at Ex. 17 at 3823.)

In the prosecution history of the '075 Patent, the examiner initially rejected the claimed ratios of Claim 1 based on indefiniteness and anticipation in light of U.S. Patent No. 4,428,370 (the "Keely patent"). As the claim was originally written, the examiner noted that "[o]verall, this claim is confusing." (D.I. 146, Ex. 17 at 3821.) The examiner rejected the claimed ratios, as they were "best understood by the examiner[.]" because "Keely disclose[d] a shape that satisfies the claimed limitations." (D.I. 146, Ex. 17 at 3822.) The applicant overcame that rejection by amending its claims and arguing that the Keely patent fails to disclose the claimed ratios.

Thus, the examiner either did not explicitly consider obviousness based on the Koch patent or rejected that basis for denying patentability. But the examiner did not have the expert witness testimony now before me explaining that a person of ordinary skill in the art would understand Koch as teaching an elongated tip and that, as a result, the claimed ratios are mathematical truisms. Although Albaad should have made those arguments, but did not, in its petition to the PTAB to institute an IPR, those arguments were not forfeited.

F.3d 1136, 1149 (Fed. Cir. 2005) (stating “that arguments based on drawings not explicitly made to scale in issued patents are unavailing”), precise measurements are unnecessary given the mathematical truths that follow from the Koch patent’s teaching of an elongated tip, as recognized by both parties’ expert witnesses.

Before concluding this obviousness analysis, however, I must still consider any available secondary considerations of nonobviousness. Secondary considerations must “be considered as part of all the evidence, not just when the decisionmaker remains in doubt after reviewing the art.” *Apple Inc. v. Samsung Elecs. Co.*, 839 F.3d 1034, 1052-53 (Fed. Cir. 2016) (quoting *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538-39 (Fed. Cir. 1983)). Secondary considerations “can include copying, long felt but unsolved need, failure of others, commercial success, unexpected results created by the claimed invention, unexpected properties of the claimed invention, licenses showing industry respect for the invention, and skepticism of skilled artisans before the invention.” *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 711 F.3d 1348, 1368 (Fed. Cir. 2013). “Evidence of secondary considerations must be reasonably commensurate with the scope of the claims[,]” and the “proponent must establish a nexus between the evidence and the merits of the claimed invention.” *In re Huai-Hung Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011) (emphasis omitted) (quoting *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1246 (Fed. Cir. 2010)). The parties here of course disagree about whether there is secondary consideration evidence sufficient to establish the claimed invention’s nonobviousness.

Edgewell proffers some evidence suggesting that its Playtex Sport tampon product, which allegedly embodies the claims in the '075 Patent, was commercially successful. Edgewell contends that the Playtex Sport tampon is the best-selling tampon in Playtex brand's history. Furthermore, Edgewell's technical witness, Mr. Abdul, testified that the Playtex Sport tampon was a commercial success. Although he did not talk to consumers or read market research to arrive at that conclusion, he said the fact that Playtex Sport was selling and the fact that the number of machines used to produce the product increased from four to eight suggested commercial success. He stated that the commercial success of the Playtex Sport product was due to the tapered tip design of the tampon applicator claimed in the '075 Patent because the increase was just in the sales of Playtex Sport tampons, not all Playtex products. Moreover, another one of Edgewell's technical experts, Mr. Rahner, testified that documents showed that consumers considered the tip of the applicator when making tampon purchase decisions, although he could not state definitively whether the evidence he cited involved pre-purchase decision-making and later admitted that the documents did not actually ask consumers to describe their preference for a tapered tip. Contrary to Albaad's assertion, that evidence, though weak, could potentially be sufficient to establish a connection between the commercial success of Edgewell's product and the claimed invention. While Albaad could argue that any alleged commercial success of the Playtex Sport tampon was due to brand recognition, advertising, promotions, competitive offerings, and price, that would perhaps only raise a genuine issue of material fact over whether Edgewell's evidence is sufficient to establish commercial success.

But commercial success, standing alone, is insufficient to overcome the strong evidence of obviousness already discussed. *See W. Union Co. v. MoneyGram Payment Sys., Inc.*, 626 F.3d 1361, 1373 (Fed. Cir. 2010) (“[W]eak secondary considerations generally do not overcome a strong prima facie case of obviousness.”); *see also Media Techs. Licensing, LLC v. Upper Deck Co.*, 596 F.3d 1334, 1339 (Fed. Cir. 2010) (“Even if [the patentee] could establish the required nexus, a highly successful product alone would not overcome the strong showing of obviousness.”). And that makes sense, because in the absence of such a rule, patentees could defeat summary judgment of invalidity under § 103 with even the weakest potentially credible evidence that they had some product sales.

Edgewell has more than just that evidence, though. It offers evidence that it characterizes as constituting industry praise and long-felt but unsolved need. Abdul stated that there was industry praise for the claimed invention because competitors marketed their products as “compared to” the Playtex Sport product. (D.I. 154, Ex. 9 at 218:10-219:10.) He appears to have stated that consumers voiced approval for the tapered tip on the tampon applicator, although that testimony is unclear. He also testified that the Playtex Sport’s immediate success in the marketplace was evidence of long-felt but unsolved need for tapered-tip tampons, although he noted that he did not have any documents supporting such consumer need.

Other evidence tends to undermine the absence of secondary considerations. Edgewell’s expert, Sheldon, testified that he did not know whether the claimed ratios produced unexpected results. Sheldon was not aware of any failure of others in the

industry to create the claimed invention. He was also not aware of any long-felt but unsolved need for the specific ratios claimed in the '075 Patent. Abdul testified that he was not aware of any evidence Edgewell had showing unexpected results. He also said that he did not have any evidence of skepticism with respect to the subject matter claimed in the '075 Patent. Furthermore, he was not aware of any evidence that others taught away from the claimed invention. Albaad's expert, Mr. Hull, added that he saw no evidence of unexpected results, no evidence of the failure of others, and no evidence of long-felt but unsolved need.

On the whole, there is only weak evidence supporting secondary considerations of nonobviousness. Even after construing that body of evidence in a light most favorable to Edgewell, there is insufficient objective indicia of nonobviousness to overcome the strong evidence supporting the obviousness of Claim 1. *See, e.g., Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (affirming a district court's obviousness determination despite the existence of "substantial evidence of commercial success, praise, and long-felt need," because that evidence was "inadequate to overcome a final conclusion that [a claim of the patent-in-suit] would have been obvious" based on "the strength of the prima facie obviousness showing").<sup>13</sup> Therefore, Claim 1 of the '075 Patent is invalid for obviousness.

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<sup>13</sup> The foregoing analysis of the evidence of secondary considerations in this case also applies to my analysis of Claims 2, 5, and 6 of the '075 Patent.

## 2. Claim 6 of the '075 Patent is Obvious

Albaad argues that Claim 6 would have been obvious in light of the Koch patent and the common sense or general knowledge of a skilled artisan. Claim 6, in comparison to Claim 1, contains one additional element: that the outer cylinder is “made of a thermoplastic resin[.]” (D.I. 154, Ex. 1 at col. 8 ll. 29-51.) Edgewell’s expert, Sheldon, admitted that plastic was being used in the 1980s to make tampon applicators, and that plastic was generally considered to make the applicator more comfortable for a user to insert. Furthermore, the case law is well settled that merely changing the material of a given device is often an obvious design choice. *See Hotchkiss v. Greenwood*, 52 U.S. 248, 262 (1850) (concluding “that a mere change of one material for another cannot be the subject of a patent”); *Richie v. Vast Res., Inc.*, 563 F.3d 1334, 1337 (Fed. Cir. 2009) (stating that “routine experimentation with different standard [or well-known] grades of a material used in a product” to achieve predictable successful results is obvious). Even if we agreed with Edgewell that Albaad failed to point to a particular prior art reference that teaches the thermoplastic resin element, specific prior art references are unnecessary where common sense or general knowledge render a claimed feature obvious. *See Randall Mfg. v. Rea*, 733 F.3d 1355, 1362 (Fed. Cir. 2013) (indicating that the background knowledge possessed by a person of ordinary skill in the art is essential to the obviousness analysis). Moreover, the specification of the '075 Patent itself states that “a synthetic resin” had been used “[i]n recent years” to ensure that the outer cylinder of the applicator has “a smooth surface[.]” (D.I. 154, Ex. 1 at col. 1 ll. 25-28.) Therefore, Claim 6 of the '075 Patent is invalid for obviousness.



### 3. Claim 2 of the '075 Patent is Obvious

Albaad argues that Claim 2 would have been obvious in light of the Koch patent and the common knowledge of a person of ordinary skill in the art. Claim 2 is dependent on Claim 1 and contains one additional claim limitation that “the root ends of said valves are located substantially at the inflection point.” (D.I. 154, Ex. 1 at col. 7 ll. 45-47.) This Court construed the term “inflection point[.]” and, when Claim 2 is read in light of that construction, the additional claim limitation provides that “the root ends of said valves are located substantially at [a] boundary point on the applicator at which the first portion changes curvature and transitions into the curved face portion.”<sup>14</sup> (D.I. 154, Ex. 1 at col. 7 ll. 45-47; D.I. 173, Ex. 4 at ¶ 11.)

Albaad argues that, because Edgewell’s expert, Sheldon, admitted that petal bases had sometimes been placed at about the inflection point in the 1970s and 80s, and because he could not identify any particular design reason for having the petals’ root ends

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<sup>14</sup> The claim construction order provides that the phrases “inflection point” and “located substantially at the inflection point” for all asserted claims means “[a] boundary point on the applicator at which the first portion changes curvature and transitions into the curved face portion.” (D.I. 173, Ex. 4 at ¶ 11.) Here, in the context of Claim 2, I read that order as construing the phrase “the inflection point” within the phrase “located substantially at the inflection point[.]” because any other interpretation would read out “located substantially at” or render the claim indefinite. *See In re Papst Licensing Digital Camera Patent Litig.*, 778 F.3d 1255, 1261 (Fed. Cir. 2015) (“[A] district court may (and sometimes must) revisit, alter, or supplement its claim constructions (subject to controlling appellate mandates) to the extent necessary to ensure that final constructions serve their purpose of genuinely clarifying the scope of claims for the finder of fact.”).

Thus, consistent with the parties’ expert witness reports, I read Claim 2 as “the root ends of said valves are located substantially at [a] boundary point on the applicator at which the first portion changes curvature and transitions into the curved face portion.” (D.I. 149, Ex. 8 at ¶¶ 54, 58; D.I. 154, Ex. 2 at ¶ 145.)

at the inflection point, it was a mere design choice that would have been obvious to a person of ordinary skill in the art. And Albaad's own expert, Hull, also provided reasons for why a person of ordinary skill in the art would put the root ends of the petals substantially at the inflection point, so as to avoid all the following: restricting the diameter of the pledget and thus reducing absorbency, increasing the required ejection force, reducing the stability of the petals, and making the molding process more difficult.

Edgewell counters that Claim 2 would not have been obvious because Sheldon also testified that the inflection point was sometimes not at about the base of the petals. But Edgewell's argument misses the mark because that testimony does not negate Sheldon's admission that the base of the petals sometimes were at about the inflection point.

Here, Sheldon's testimony and Hull's expert report provide facts sufficient for me to conclude that a person of ordinary skill in the art would have considered it an obvious design choice to place the root ends substantially at the inflection point. Elongating the tip of a generic tampon applicator carries along with it all the components of the then-generic applicator, which included placing the root ends of the petals at the inflection point of the tapered tip, as known in the art at the time of the claimed invention. Thus, Claim 2 of the '075 Patent is invalid for obviousness.

#### **4. Claim 5 of the '075 Patent is Obvious**

Albaad argues that Claim 5 would have been obvious in light of the Koch patent and the general knowledge of a skilled artisan. Claim 5, in comparison to Claim 1, contains two additional claim limitations. The first additional limitation is that the

“plurality of valves” must have “a first inflection point at the root end of said valve[.]” (D.I. 154, Ex. 1 at col. 8 ll. 15-18.) The second additional limitation is that the “plurality of valves” must contain “a second inflection point adjacent to the leading end of said valves, a curvature radius for said first inflection point being larger than a curvature radius for said second inflection point[.]” (D.I. 154, Ex. 1 at col. 8 ll. 15-22.)

Albaad contends that the first additional claim limitation, that each valve have “a first inflection point at the root end of said valve[.]” is similar to the limitation in Claim 2 that “the root ends of said valves are located substantially at the inflection point.” (D.I. 154, Ex. 1 at col. 7 ll. 46-47, col. 8 l. 18.) Edgewell does not appear to dispute that contention. I agree that the two limitations are similar, and thus that first additional limitation of Claim 5 is obvious for essentially the same reasons that Claim 2 is obvious. Because a person of ordinary skill in the art would have considered it an obvious design choice to place the root ends of the petals substantially at the inflection point, that person also would have considered it an obvious design choice to put the root ends *at* the inflection point, a location that falls within the obvious range discussed with respect to Claim 2.

I also agree with Albaad that the second additional limitation, that each valve have “a second inflection point adjacent to the leading end of said valves, a curvature radius for said first inflection point being larger than a curvature radius for said second inflection point,” is obvious. (D.I. 154, Ex. 1 at col. 8 ll. 19-22.) Albaad’s expert, Hull, stated in a number of places in his expert report that that limitation in Claim 5 “would have been obvious in view of Koch ... or common sense.” (D.I. 154, Ex. 2 at ¶¶ 203,

226, 247, 249.) Hull stated that the Koch patent disclosed that limitation because “any person skilled in the art would recognize that the curvature of the tip [in the Koch patent] changes in the manner claimed [in the ’075 Patent,]” and it “would have been an obvious way to help prevent the pledget from ejecting prematurely.” (D.I. 154, Ex. 2 at ¶¶ 99, 153-54, 203, 226, 247, 249.) Furthermore, he stated that it “would have been obvious to try” a smaller radius at the tip of the tampon applicator, and that it “was a common sense solution to the premature ejection problem[.]” (D.I. 154, Ex. 2 at ¶¶ 99, 205, 226.)

Edgewell has not identified any evidence in the record contradicting Hull’s contentions of what a person of ordinary skill in the art would have known at the time of invention.<sup>15</sup>

Therefore, I conclude that there is no material dispute of fact that a person of ordinary skill in the art would have considered it obvious in light of the Koch patent to design an applicator tip having a smaller radius of curvature at the second inflection point in

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<sup>15</sup> I note that Sheldon’s rebuttal report can perhaps be read to suggest that the Koch patent would not have taught a second inflection point to a person of ordinary skill in the art. But Edgewell has not taken that position, or at least it has not pointed that out to me in its answer to Albaad’s motion for invalidity. Accordingly, Edgewell has forfeited that argument. *See Intercontinental Great Brands LLC v. Kellogg N. Am. Co.*, 869 F.3d 1336, 1342 n.3 (Fed. Cir. 2017) (stating that a litigant forfeited a point when it made only “a bare assertion” rather than “a meaningful argument” and identified no supporting evidence). Moreover, Sheldon’s testimony with respect to identifying a specific inflection point on the drawing in the Koch patent does not directly contradict Hull’s broader statement that a person of ordinary skill in the art would observe a general change in the radius of curvature at the tip of the tampon applicator that aligns with the claimed invention in the ’075 Patent. Finally, even if Sheldon’s testimony raised a material dispute of fact with regard to what a person of ordinary skill in the art would observe when looking at the drawing in the Koch patent, that testimony does not dispute what would have been obvious to try.

comparison to the first inflection point. Claim 5 of the '075 Patent is invalid for obviousness.

For those reasons, I will grant Albaad's motion for summary judgment of invalidity.<sup>16</sup> (D.I. 152.) Edgewell has moved for summary judgment of no invalidity on Claims 1, 2, 5, and 6 of the '075 Patent, but for the same reasons that I will grant Albaad's motion for summary judgment of invalidity, I will deny Edgewell's motion for summary judgment of no invalidity. (D.I. 147)

#### **V. SUMMARY JUDGMENT MOTIONS ON INFRINGEMENT**

The parties also filed cross-motions for summary judgment regarding infringement of Claims 1, 2, 5, and 6 of the '075 Patent. Edgewell moves for summary judgment of infringement of Claims 1, 2, and 6 of the '075 Patent, while Albaad moves for summary judgment of non-infringement of Claims 1, 2, 5, and 6 of the '075 Patent. Albaad also moves for summary judgment of no willful infringement of those claims. Because I conclude that the asserted claims in the '075 Patent are invalid for obviousness, I will deny both Edgewell's motion for summary judgment of infringement (D.I. 144) and Albaad's motion for summary judgment of non-infringement and no willful infringement (D.I. 155) as moot.

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<sup>16</sup> Because I conclude that Claims 1, 2, 5, and 6 of the '075 Patent are invalid as obvious, I do not consider Albaad's alternative invalidity arguments that those claims lack written descriptions and that Claim 5 is indefinite.

## **VI. DAUBERT MOTIONS**

Finally, both parties submitted motions under Federal Rule of Evidence 702, as applied by the United States Supreme Court in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), to exclude each other's damages expert from offering his or her testimony. (D.I. 150, 158.) Those motions will also be denied as moot.

## **VII. CONCLUSION**

For the reasons stated herein, I will grant Albaad's motion for summary judgment of invalidity on Claims 1, 2, 5, and 6 of the '075 Patent. (D.I. 152.) Consequently, the other pending motions will be denied. (D.I. 144, 147, 150, 155, 158.)